

# Notice of Allowability

Application No.

10/772,605

Examiner

Daniel Swerdlow

Applicant(s)

ROECK, HANS-UELI

Art Unit

2615

## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 10 January 2007.
2. ☒ The allowed claim(s) is/are 1-4, 6-9, 11 and 13-19.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

### REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance:
2. Regarding Claim 1, applicant has incorporated matter from Claim 5 that was indicated as allowable in the prior Office action. As such, Claim 1 is allowable for the reasons stated in the prior Office action.
3. Claims 2, 6 and 9/1 are allowable due to dependence from Claim 1.
4. Regarding Claim 3, WO 02/05591 A2 to Phonak discloses a hearing device (Fig. 1) comprising a microphone M1 that corresponds to the input device claimed, a signal processing unit 1 and an output signal u that is fed to the hearer of the hearing device, inherently including an output transducer ( 0016, lines 5-7) in which: microphone M1 records acoustics signals and feeds an output to the signal processing unit (i.e., converts an acoustic input signal into a converted input signal) ( 0014, lines 2-3; 0015, lines 2-3); feeding the microphone signal to the signal processing unit 1 that outputs signal parts (i.e., processing the converted input signal in a main signal path in order to obtain a main output signal) ( 0015, lines 3-5; 0016, lines 1-3); feeding the signal parts to the hearer of the hearing device (i.e., supplying the main output signal to an output transducer) ( 0016, lines 5-7); multiplying (i.e., processing) the output of microphone M1 (i.e., the converted input signal) in a multiplier 5 that corresponds to the side signal path claimed to a weighted signal that corresponds to the side path output signal claimed ( 0022, lines 5-9); adding (i.e., superimposing) the weighted signal that corresponds to the side path output signal claimed and the signal processing unit output that corresponds to the main output signal claimed ( 0022, lines 8-9), wherein the path through the signal processing unit that corresponds to the main signal path claimed includes a beamforming algorithm ( 0015- 0016)

while the path that corresponds to the side path claimed includes only a simple scaling ( 0022, lines 5-9). As such, the path that corresponds to the side path claimed inherently has a smaller group delay than the path through the signal processing unit that corresponds to the main signal path claimed. Phonak further discloses the gain in the signal that corresponds to the side path output signal claimed and the signal processing unit output that corresponds to the main output signal claimed being always complementary (Fig. 1; 0022). As such, the gain in the signal that corresponds to the side path output signal claimed is a function of the gain in the signal processing unit output that corresponds to the main output signal claimed. However, the prior art does not disclose the gain in the signal that corresponds to the side path output signal claimed being computed from the gain in the signal processing unit output that corresponds to the main output signal claimed. Because the prior art does not disclose all elements of the claimed invention, the claim is allowable.

5. Claim 4 is allowable due to dependence from Claim 3.

6. Regarding Claim 7, applicant has rewritten the claim in independent form including all limitations of its base claim. As such, Claim 7 is allowable for the reasons stated in the prior Office action.

7. Claims 8 and 9/7 are allowable due to dependence from Claim 7.

8. Regarding Claim 11, applicant has incorporated matter from Claim 12 that was indicated as allowable in the prior Office action. As such, Claim 11 is allowable for the reasons stated in the prior Office action.

9. Claims 13 through 15 and 19/11 are allowable due to dependence from Claim 11.

10. Regarding Claim 16, applicant has rewritten the claim in independent form including all limitations of its base claim. As such, Claim 16 is allowable for the reasons stated in the prior Office action.

11. Claims 17, 18 and 19/16 are allowable due to dependence from Claim 16.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Swerdlow whose telephone number is 571-272-7531. The examiner can normally be reached on Monday through Friday between 7:30 AM and 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh H. Tran can be reached on 571-272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Daniel Swerdlow  
Primary Examiner  
Art Unit 2615